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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary**Application No.**

09/820,457

Applicant(s)

BORG ET AL.

Examiner

Tan Dean D. Nguyen

Art Unit

3689

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/23/09.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 16-19, 26 and 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 16-19, 26 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/C)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Response to Amendment

1. The amendment filed of 12/23/09 has been entered.

Claims Status

2. Claims 1-9, 16-19 and 26-27 are pending. They comprise:

1) method¹: claims 1-9 (currently amended),

2) method²: 16-19 (currently amended),

3) method³: 26 (new), and

4) method⁴: 27 (new),

Claims canceled: 10-15, and 20-25.

Method claim 27 appears to be broadest claim and will be examined first.

As of 12/23/09, independent claim 27 is as followed:

27. (New) A method, comprising:

- a) after removal of a replaceable printing component from a printing device,
- b) retrieving printing device data from component memory of the replaceable printing component, the printing device data comprising one or more of identification information or usage information of the printing device from which the replaceable printing component was removed;
- c) storing the printing device data in a database;
- d) accessing the printing device data of the database; and
- e) assisting a customer with resolving a problem with a printing device using the printing device data of the database.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. **Claims 27, 26, 16-19 and 1-8 are rejected under 35 U.S.C. 103(a) as obvious over (1) HAYWARD et al (US 6,985,877) in view of (2) CREMON et al or vice versa and (3) YOKOMORI et al.**

As for independent method claim 27, similarly, in a printing system with operation monitoring system, **HAYWARD et al** discloses the monitoring (communication) steps comprising:

b) compiling data by retrieving data (communicating/interrogating) from an integrated components including a replaceable component (cartridge, ink, ribbon) and others (sensor, processor, etc) from a printing device, the data comprising one or more of identification information (or usage information of the printing device);

{see Fig. 8, elements (8) which includes a sensor (12) and replaceable component (8), (34), (38), (36), (50), col. 9, lines 10-20 "...*may regularly or intermittently interrogate the consumable component for information...*", lines 43-55, col. 7, lines 3-65, col. 8, lines 5-67 "...*monitor module to track how many pages have been printed an/or how much ink has been expended*"},

c) storing the data in a database;

{see Fig. 8, server/database 40, element 8, 50, 36, 34 and 38, col. 9, lines 10-25,

d1) associating the data with a customer;

{see col. 9, lines 24-27, col. 7, lines 60-67, col. 8, lines 5-52}.

d2) accessing the data in the database, wherein the accessed data is used for interrogation of the condition of the replaceable component (consumable component 11).

{see Fig. 8, server/database 40, element 8, 50, 36, 34 and 38, col. 9, lines 10-27, "...*may regularly or intermittently interrogate the consumable component 11 for*

information ... then process and communicate such information to the server 40..., col. 7, lines 60-67, col. 8, lines 5-52}, and

e) assisting a specific customer with resolving a problem with a particular printing device using printing device data within the customer database.

{see Fig. 3, "**Service Name**", "**On-line Help**", Fig. 4, "System Setting", "Maintenance", cols. 6-7, "*maintenance ...**diagnostic routines...** **diagnostic module...** **help information...**", Fig. 8, col. 8}*

Note: in view of the general teaching of "accessing the manufacturer's server 40 for information or services", as cited on col. 6, lines 35-57 and col. 7, lines 60-67, it would have been obvious to include this "accessing the database/server" in col. 7, lines 20-57, in order to obtain/view information (interrogation the condition of replaceable component (consumable component 11) or perform services such as initiating an electronic ordering for a replacement of the consumable component ordering as indicated above.

Therefore, HAYWARD et al fairly teaches the claimed invention except for step (a) and wherein the data is retrieved from the memory component of the integrated components in step (b). In other word, the integrated components include a memory component besides the replaceable component and others wherein the data is retrieved from.

CREMON et al is cited to teach the use of memory component (or tag or ID tag) integrated with a printer replaceable component such as toner cartridge, ink, ribbon, etc.

to store various kinds of information or data (i.e. product information, control data from reading other equipment) about the replaceable component (or related to the printing device such as the cartridge or ink ribbon or the printer) and to communicate with other devices such as external computer or processor of the printer and receive data from them with respect to system status or performance history of the replaceable component and wherein the RFID tag is removable and recyclable {see pars. [0045-0046, 0061 "*RFID chip is removable and recyclable*"]}. The reading of other data such as identification and usage information of the printing device would have been obvious as mere reading other similar or desired data in view of the teachings of "product information and control data from reading other equipments as taught above".

Therefore, it would have been obvious to a skilled artisan to modify the integrated components in the system of HAYWARD et al to include a memory component, RFID tag, on the replaceable printing cartridge for storing data about the cartridge and the printer or computer as taught by CREMON et al for controlling purpose {see pars. 0045-0046}.

Alternatively, the teaching of CREMON et al is indicated above. It would have been obvious to modify the teaching of CREMON et al to include the teachings of HAYWARD et al as cited above for interrogation of the condition of the replaceable component and assisting a specific customer with resolving a problem with a particular printing device using printing device data within the customer database.

The teachings of HAYWARD et al / CREMON et al or vice versa fails to explicitly teach the removal of a replaceable printing component from a printing device.

YOKOMORI et al is cited to teach well known elements/functions for recycling of the process printing ink cartridge wherein the used process cartridges are collected and delivered to the collection center and then transported from the collection centers to a cartridge recycling plant (center) whereby the used cartridges are classified or grouped and then go through the processes of (a) dis-assembling, selecting, cleaning, inspection and re-assembling {see cols. 35-36}.

Therefore, it would have been obvious to (a) recycle the replaceable printing component by removing it from the printing device and test the used replaceable component for a defect, storing the data and associate the customer in **HAYWARD et al** /**CREMON et al** for inherently improving recycling product efficiency and customer problems as taught in cols. 1 and 36 of **YOKOMORI et al**.

7. **As for independent claim 26**, which differs from independent claim 27 in step (a) by “receiving a used replaceable printing component from a customer”, this is inherently included in the teaching of **YOKOMORI et al** when the cartridge is removable and recyclable.

8. **As for independent claim 16**, which has similar limitation as in independent claim 27 above, it’s rejected for the same reason set forth in the rejection of claim 27 above.

As for dep. claim 17 (part of 16), which deals with well known automatic customer ordering management parameters, i.e. storing customer information for a

customer in the database and associating the customer information with the compiled data, this is taught in HAYWARD et al Figs. 5-6, col. 4, lines 47-67.

As for dep. claims 18-19 (part of 16 above), which deals with well known automatic customer ordering management parameters, i.e. acquiring the customer information from a source and associating the customer information with general data, these are taught in HAYWARD et al Fig. 5, col. 4, lines 5-10, 47-67, col. 5, lines 1-10, col. 9, lines 20-55 or well known facts as indicated in the specification page 1, lines 15-21.

9. **As for independent method claim 1**, which basically has similar limitation as in independent claim 27 above, it's rejected for the same reason set forth in the rejection of claim 27 above.

As for dep. claims 2-3 (part of 1), which deals with well known information/data parameters, i.e. type of information/data such as about the device and its usage, these are non-essential to the claimed invention and are fairly taught in HAYWARD et al Figs. 3, 5-6, col. 2, lines 35-50, col. 4, lines 32-67, col. 8, lines 30-45, col. 9, lines 20-67 or CREMON et al pars. [0044-0045]. Note that the selection of the type of information depends on the desired object/scope/monitoring parameter, etc. and is within the skilled of the artisan..

As for dep. claims 4 (part of 1), which deals with well known information/data parameter, i.e. type of information/data such as previously stored in a database, this is non-essential to the claimed invention and are fairly taught in HAYWARD et al col. 6, lines 35-65, col. 8, lines 35-60, or CREMON et al pars. [0044-0046].

As for dep. claims 5-6 (part of 1), which deals with well known information/data parameter, i.e. features of the information/data previously stored in a database, these are non-essential to the claimed invention and are fairly taught in HAYWARD et al Figs. 6, 8, col. 2, lines 5-16, col. 8, lines 1-25 or CREMON et al pars. [0044-0046]. Note that in claims 5-6, the phrase "is derived from...components or registration card", is not a positively recited method step, but rather is mere intended use of the term "rules", thus having no patentable weight in a method claim. Moreover, the obtaining customer information from registration card is well known and mentioned in the background of the invention, page 1, middle paragraph. Moreover, these are non-functional language limitation, i.e. "is derived", and carry no patentable weight.

As for dep. claim 7 (part of 1), which deals with well known device parameter, i.e. type of printer and component, these are non-essential to the claimed invention and are fairly taught in HAYWARD et al in col. 9, lines 35-42, col. 10, lines 13-18 or YOKOMORI et al col. 1, lines 10-55. The use of any similar types of printer or cartridge would have been obvious as mere using any other similar types.

As for dep. claim 8 (part of 1), this is taught on HAYWARD et al col. 2, lines 40-45 or CREMON et al pars. [0064-0068]. Moreover, this would have been obvious to a skilled artisan as mere applying other well known business parameters or variables since the selection of any well known business rules for compensation of irregular product or service would have been obvious, i.e. free replacement of product or service for malfunction within the 1st year of normally guaranteed performance. Note that no

specific rules is cited, but just a rule so this appears to be non-essential since rules are inherently included in every business dealings.

As for dep. claim 9 (part of 1), which deals with parameters for managing the replaceable component, testing for a defect and finding the defect and associating the defect with a source, this is taught in YOKOMORI et al cols. 1 and 36. Moreover, it would have been obvious to test the used replaceable component for a defect, storing the data and associate the customer for inherently improving recycling product efficiency and customer problems as taught in cols. 1 and 36 of YOKOMORI et al.

10. Claims 16-19, 1-8, 26 and 27 are rejected (2nd time) under 35 U.S.C. 103(a) as obvious over HARDMAN ET AL in view of (CREMON et al and YOKOMORI et al) or vice versa.

As for independent claim 16, HARDMAN ET AL discloses a method comprising:

a) compiling data retrieved from the component memory of a plurality of replaceable components into a customer database;

{see Figs. 12, 15, 23, 30 and 32, pars. [0253], [0258]}

b) accessing the customer database; and

{see Figs. 20, 29, 30, 32, pars. [0258], [0261] }, [0262 "...shows **history data**..."]-
[0265]}

c) assisting a specific customer.

{see Figs. 25, 20, especially Fig. 30 “a user can contact ... about **questions** or **problems** right from their user screen...”, and Fig. 32, and pars. [0258] and [0261], [0262 “...**shows history data**...”]-[0265]}

Alternatively, in view of the teachings of [0234] for improving efficiency for servicing, evaluation, early identification of problems to eliminate further damage by using the “Tag System” which monitors and reports problems and events for evaluation, it would have been obvious to use the “Tag System” for assisting a customer to resolve a problem with a particular device using data within the customer database. Alternatively, the use of the same “Tag System” for monitoring other device/system would have been obvious as mere applying the same data monitoring and processing system above to other device to achieve similar results, see similar application teachings on par. [0309]. Note that the claims has no limitation related to “printing devices”.

HARDMAN ET AL fairly teaches the claimed invention except for the type of component and device, a printing component in a printing device.

CREMON et al is cited to teach the use of memory component (or tag or ID tag) integrated with a printer replaceable component such as toner cartridge, ink, ribbon, etc. to store various kinds of information or data (i.e. product information, control data from reading other equipment) about the replaceable component (or related to the printing device such as the cartridge or ink ribbon or the printer) and to communicate with other devices such as external computer or processor of the printer and receive data from them with respect to system status or performance history of the replaceable

component and wherein the RFID tag is removable and recyclable {see pars. [0045-0046, 0061 "*RFID chip is removable and recyclable*]}]. The reading of other data such as identification and usage information of the printing device would have been obvious as mere reading other similar or desired data in view of the teachings of "product information and control data from reading other equipments as taught above".

Therefore, it would have been obvious, to person having ordinary skill in the art (PHOSITA), at the time the instant invention was made, to utilize such printing component in printing device, as taught by CREMON et al, in the system of HARDMAN ET AL, since it has been held to be within the general skill of a PHOSITA to select a known item on the basis of its suitability for the intended use as a matter of obvious design choice. See *In re Leshin*, 125 USPQ 416.

The teachings of HARDMAN et al / CREMON et al or vice versa fails to explicitly teach the removal of a replaceable printing component from a printing device.

YOKOMORI et al is cited to teach well known elements/functions for recycling of the process printing ink cartridge wherein the used process cartridges are collected and delivered to the collection center and then transported from the collection centers to a cartridge recycling plant (center) whereby the used cartridges are classified or grouped and then go through the processes of (a) dis-assembling, selecting, cleaning, inspection and re-assembling {see cols. 35-36}.

Therefore, it would have been obvious to (a) recycle the replaceable printing component by removing it from the printing device and test the used replaceable

component for a defect, storing the data and associate the customer in HARDMAN et al /CREMON et al for inherently improving recycling product efficiency and customer problems as taught in cols. 1 and 36 of YOKOMORI et al.

Alternatively, it would have been obvious, to person having ordinary skill in the art (PHOSITA), at the time the instant invention was made, to modify the teachings of CREMON et al /YOKOMORI et al by including the teachings of HARDMAN ET AL, in the system of CREMON et al /YOKOMORI et al, since it has been held to be within the general skill of a PHOSITA to select a known item on the basis of its suitability for the intended use of "diagnostics" and "On-line Help" and "Maintenance" for similar used replaceable components. See *In re Leshin*, 125 USPQ 416.

As for dep. claim 17 (part of 16 above), which deals with well known step of managing customer information/profile parameter, storing customer information in the database, this is taught in HARDMAN ET AL Figs. 29-33, pars. [0261-[0265] or CREMON et al pars. [0044-0046].

As for dep. claim 18 (part of 16 /17 above), which deals with well known step of managing customer information/profile parameter, acquiring customer information from an item such as registration tool, this is taught in HARDMAN ET AL Figs. 31-33, pars. [0263-0265]. Note that this is mere data processing or communication and the source of the data, such as screen or card, does not carry much patentable weight since they both require the entering of the information into a screen for data processing and this is taught in HARDMAN ET AL. Alternatively, it would have been obvious to acquire customer information from other well known sources such as card. As for the intended

use of the card or screen, for registration, this has no patentable weight and furthermore, it's considered as non-functional descriptive material.

As for dep. claim 19 (part of 16 /17 above), which deals with well known step of managing customer information/profile parameter, associating customer information with general data related to a device used by a customer, this is taught in Figs. 27-33, pars. [0261-0265] and CREMON et al pars. [0044-0046].

As for independent method claims 1, 26 and 27, which have similar limitations to independent method claim 16, they are rejected for the same reason set forth in the rejection of independent method claim 16 above.

As for dep. 2-6 (part of 1 above), which have similar limitations to claims 16-19 above, they are rejected for the same reason set forth in the rejections of claim 16-19 above.

As for dep. claim 7 (part of 1 above), which deals with the type of printed and cartridge, these are taught in YOKOMORI et al col. 1, lines 10-55 or CREMON et al Figs. 1, 7, pars. [0038-0042]. Moreover, the use of any other conventional type of printer or cartridge would have been obvious as mere using other similar (equivalent) well known printer and cartridge types on the same method to achieve similar results.

As for dep. claim 8 (part of 1), this is taught on CREMON et al pars. [0064-0068]. Moreover, this would have been obvious to a skilled artisan as mere applying other well known business parameters or variables since the selection of any well known business rules for compensation of irregular product or service would have been obvious, i.e. free replacement of product or service for malfunction within the 1st year of normally

guaranteed performance. Note that no specific rules is cited, but just a rule so this appears to be non-essential since rules are inherently included in every business dealings.

As for dep. claim 9 (part of 1), which deals with parameters for managing the replaceable component, testing for a defect and finding the defect and associating the defect with a source, this is taught in YOKOMORI et al cols. 1 and 36. Moreover, it would have been obvious to test the used replaceable component for a defect, storing the data and associate the customer for inherently improving recycling product efficiency and customer problems as taught in cols. 1 and 36 of YOKOMORI et al.

Response to Arguments

11. Applicant's arguments filed 12/23/09 have been fully considered but they are not persuasive in view of the new grounds of rejections which were caused by applicant's amendments of the claims.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

No claims are allowed.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see <http://pair-direct@uspto.gov>. Should you have any questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

14. Any response to this action should be mailed to:
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15. In receiving an Office Action, it becomes apparent that certain documents are missing, e. g. copies of references, Forms PTO 1449, PTO-892, etc., requests for copies should be directed to Tech Center 3600 Customer Service at (571) 272-3600, or e-mail CustomerService3600@uspto.gov.

16. Any inquiry concerning the merits of the examination of the application should be directed to Dean Tan Nguyen at telephone number (571) 272-6806. My work schedule is normally Monday through Friday from 6:30 am - 4:00 pm. I am scheduled to be off every other Friday. Should I be unavailable during my normal working hours, my supervisor Janice Mooneyham can be reached at (571) 272-6805. The main FAX phone numbers for formal communications concerning this application are (571) 273-8300. My personal Fax is (571) 273-6806. Informal communications may be made, following a telephone call to the examiner, by an informal FAX number to be given.

/Tan Dean D. Nguyen/
Primary Examiner, Art Unit 3689